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**(54) FAULT DIAGNOSING DEVICE FOR IGNITING  
LIGHT EMITTING SOURCE OF OPTICAL  
THYRISTOR VALVE**

even if the state quantity of the light emitting source varies.

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(57) Abstract:

PURPOSE: To take an accurate diagnosis at any time even if the state quantity of a light emitting source varies by detecting the state quantity of the light emitting source and calculating the reference value of its quantity of light, etc., and comparing it with the detected value of the quantity of light of the light emitting source and making a decision.

CONSTITUTION: Detected values of the driving current, ambient temperature, etc., of the LED 4 of the light emitting source which are obtained by a current transformer 9 and a temperature sensor 8 are supplied and the CPU of a deterioration deciding circuit 20 calculates the reference quantity of light of reference light intensity corresponding to the state quantity of the LED. Then, the quantity of light emission or intensity of the LED 4 which is detected through a monitor optical fiber 3, a photoelectric converting element 10, etc., is compared with the calculated reference quantity by the circuit 20 to decide whether or not the LED 4 deteriorates. Consequently, the fault of the light source is diagnosed correctly at any time

